

IN THE SPECIFICATION:

Please substitute the following paragraph for the paragraph starting at page 7, line 26 and ending at page 8, line 3.

The variable member is preferably the liquid delivery device, wherein the variable member is comprised of a flexible resin film, and more preferably comprised of plural flexible resin films linked ~~in-tern~~ internally.

Please substitute the following paragraph for the paragraph starting at page 8, line 13 and ending at line 20.

The liquid flow ~~canne~~ channel is comprised of a first flow channel branch and a second flow channel branch provided with the pressure generating means, and a third flow channel branch is connected to the first flow channel branch and the second flow channel branch, and either the first flow path branch or the second flow channel branch is closed by the variable member.

Please substitute the following paragraph for the paragraph starting at page 11, line 6 and ending at page 12, line 4.

With a simple elastic body, in one method for stabilizing the elastic body equally in the first stable state and the second stable state, a straight flat spring without stress is prepared and deflected. The same level of stability can be obtained by photolithography by utilizing ~~difference~~ differences in thermal expansion ~~coefficient~~ coefficients. However, such a

deflected structure at the preparing step, which is referred to as a first stable state in this discussion, is in the most stable state, and a second stable state is a metastable state having a higher energy than the first stable state, being possibly insufficient in the stability. When a resin film having viscoelasticity in a deflected structure is employed as the variable member, such a viscoelastic variable member exhibits an elastic response to an instant external force to retain each of the stable and metastable states, and if any one of the states is held for a relative long time, the member causes a viscous flow so that a shape under the state held is more stable. Accordingly, in this embodiment, a viscoelastic resin film in a flexible structure is preferably employed as the variable member because the metastable state will become stabilized with lapse of time to give a valve of high stability against external disturbance advantageously.

Please substitute the following paragraph for the paragraph starting at page 12, line 21 and ending at page 13, line 11.

The device of this embodiment provides a three-way valve which comprises a first flow channel branch 8, a second flow channel branch 9, and a third flow channel branch 10, and a variable member-holding room 6 containing variable member 1 and connecting the three flow channel branches, a first heater 2 placed in the first channel branch 8, and a second heater 3 placed in the second channel branch 9. Thereby, variable member 1 is transformed by bubbling caused by first heater 2 or second heater 3 between the first stable state and the second stable state to close first channel branch 8 or second channel branch 9. Thus the three-way valve ~~has~~ function functions (1) to introduce the liquid introduced from third channel branch 10 into first

channel branch 8 or second channel branch 9, or (2) to introduce selectively the liquid from first channel branch 8 or the liquid from second channel branch 9 into third channel branch 10.

Please substitute the following paragraph for the paragraph starting at page 14, line 19 and ending at page 15, line 4.

Figs. 4A and 4B illustrate schematically the variable member in a gently deflected structure. This deflection structure may be formed with gentle deflection so as to be supported by supporting portions 27 on ~~the both side~~ sides with respect to the center line 41 as shown in Fig. 4A. In this case also, a stable state can be obtained, when the variable member is pressed against wall 42 having inlet aperture 43, to close the flow channel with complicated deformation of the variable member as shown in Fig. 4B. Such a closing state is also shown schematically with simplification as shown by numeral 44.

Please substitute the following paragraph for the paragraph starting at page 15, line 5 and ending at page 16, line 1.

Figs. 5A and 5B illustrate schematically a basic operation of the first embodiment of the liquid delivery device of the present invention. Figs. 5A and 5B shows operation of a micro-valve of this embodiment in which a liquid is allowed to bubble by heating by application of voltage to heating resistor 2. In Fig. 5A, variable member 1 in a first stable state is transformed into second stable state 24 by bubble formation at a high pressure of about 100 atm and bubble growth to cross a potential barrier to the variable member transformation to

open first flow channel branch 8 and close second flow channel branch 9. In Fig. 5B shows the state of bubble contraction. In Fig. 5B, variable member 1 in the second stable state 24 tends to return to the first stable state owing to the contraction of the bubble. However, variable member 1 is retained in the second stable state, since there is a potential barrier corresponding to the stabilization energy for transformation of the variable member to be crossed between the first stable state and the second stable state and the pressure difference in the contraction is about 1 atm or less, much smaller than the pressure difference of bubbling.

Please substitute the following paragraph for the paragraph starting at page 18, line 10 and ending at line 12.

The valve of this embodiment opens and closes selectively only a specific one of the three flow channel branches as shown in Figs. 11A and 11B.

Please substitute the following paragraph for the paragraph starting at page 22, line 10 and ending at line 16.

Fig. 18 shows features of an eighth embodiment. The numerals denote the following: 175a, 175b, 177a, and 177b, respectively an electrode for applying a voltage to a piezo element; 176a and 176b, respectively a piezoelectric material layer; 171a and 171b, respectively a piezoelectric element as the pressure-generating means.